

How virtuous are gelotophobes? Self- and peer-reported character strengths among those who fear being laughed at

RENÉ T. PROYER and WILLIBALD RUCH

Abstract

In this study we combine variables that make our lives most worth living with the fear of being laughed at. Peterson and Seligman (2004) suggested a classification of 24 strengths of character and six virtues. The virtues are universally evaluated positively across different countries and cultures. A sample of N = 346 participants allowed the examination of correlations between self- and peer-reported character strengths and gelotophobia. The results indicate that gelotophobia is negatively related to overall virtuousness in self-reports and in the same direction but less so in peer-reports. The rank-order of the character strengths showed that mainly modesty and prudence (both of the virtue of temperance) were positively correlated with gelotophobia (this was also supported by peer-reports). Gelotophobia was mainly negatively related to hope/optimism, curiosity, bravery, love, and zest. The analysis of mean score differences revealed that in some cases the mean scores for the peer-reports of character strengths were higher for the highest scoring gelotophobes than for the less gelotophobic and even lower or equal to the mean scores of the non-gelotophobes. This unexpected finding cannot be fully explained and needs to be addressed in follow-up studies. The results of the study clearly indicate that it is worthwhile to study gelotophobia in its relation to variables of positive psychological functioning.

Keywords: Character strength; gelotophobia; humor; peer-report; positive psychology; virtue.

1. Introduction

1.1. *A classification of character strengths and virtues*

Positive Psychology is the scientific study of traits, emotions, and institutions that make our lives most worth living (see Seligman and Csikszentmihalyi 2000). Mental health professionals use classification schemes like the DSM (Diagnostic Statistic Manual of Mental Disorders; American Psychiatric Association 1994) for diagnosing their patients. Such manuals typically contain problematic behaviors and symptoms along with further descriptions and diagnostic guidelines for the respective disorders. However, no such classification was available for positive behaviors and traits and variables that are associated with positive psychological functioning. Peterson and Seligman (2004) closed this gap with their “Manual of the Sanities” that comprises a classification of twenty-four character strengths and six virtues (Values-in-Action classification; VIA). Their system is based on a literature review from different sources (e.g., religion, philosophy, history, psychology, etc.) and led to the description of universal virtues that are considered as positive and desirable across different cultures (Dahlsgaard et al. 2005). The six virtues are (1) *wisdom and knowledge* (cognitive strengths that entail the acquisition and use of knowledge—e.g., curiosity; all definitions follow Peterson and Seligman 2004), (2) *courage* (emotional strengths that involve the exercise of will to accomplish goals in the face of opposition, external or internal—e.g., bravery), (3) *humanity* (interpersonal strengths that involve “tending and befriending” others—e.g., love), (4) *justice* (civic strengths that underlie healthy community life—e.g., fairness), (5) *temperance* (strengths that protect against excess—e.g., forgiveness), and (6) *transcendence* (strengths that forge connections to the larger universe and thereby provide meaning—e.g., gratitude). Each of these virtues is constituted by three to five character strengths. The strengths can be assessed by a reliable and valid questionnaire (Values-in-Action Inventory of Strengths, VIA-IS, Peterson et al. 2005; see also Linley et al. 2007; Matthews et al. 2006; Park et al. 2004, 2006; Peterson et al. 2006, 2007).

Humor (playfulness) is also part of the Peterson and Seligman classification (assigned to the virtue of transcendence). In the Values-in-Action classification, humor is understood as liking to laugh and joke; bringing smiles to other people. Peterson and Seligman (2004: 530) refer to its moral good character for “making the human condition more bearable

by drawing attention to its contradictions, by sustaining good cheer in the face of despair, by building social bonds, and by lubricating social interaction.” Recently, Beermann and Ruch (2008) examined the virtuousness of humor using the VIA-classification. The results show that the items of twelve current subjective measures for humor (such as the HBQD by Craik et al. 1993, HSQ by Martin et al. 2003, or the STCI by Ruch et al. 1996) represent all of the six core virtues. However, the items cover mainly the virtues of *humanity* and *wisdom*. Additionally, ratings of the content of the items on a dimension between vice and virtue show that most of the item contents were rated as neutral but also that the items cover the whole range of the dimension.

1.2. *Positive psychology and the fear of being laughed at*

There are several reasons why gelotophobia should be studied in its relation to character strengths and virtues. Firstly, personality is related to the fear of being laughed at. For example, gelotophobia was examined in its relation to intelligence (Proyer and Ruch this issue), to emotions (Platt 2008), to comprehensive models of personality (Ruch and Proyer in press), or to psychiatric categories such as personality disorder, schizophrenia, or eating disorders (Forabosco et al. this issue). However, for a complete picture of the experiential world of gelotophobes variables of positive psychological functioning are also needed and a comprehensive model such as the VIA-classification seems to be best suited for this effort.

Secondly, gelotophobia is negatively related to satisfaction with life (and orientations to happiness; Proyer et al. forthcoming). Character strengths have relationships to satisfaction with life that are consistent across different samples and countries. Certain strengths even promote satisfaction with life (Otake et al. 2006; Peterson et al. 2006, 2007; Seligman et al. 2005). A survey of the gelotophobes’ scores in the strengths with the highest relations to subjective satisfaction with life might provide further understanding of their overall well-being.

Thirdly, based on prior works on gelotophobia, specific predictions on the relations between strengths/virtues and gelotophobia can be set up. For example, the Ruch et al. (this issue) study suggests that there is a negative relation between gelotophobia and humor. This should also be reflected in the VIA-IS humor scale. Furthermore, observing that people get laughed at leads to different consequences (e.g., reduced creativity or

higher conformity) among the bystanders (Janes and Olson 2000). These consequences might also be relevant for gelotophobes. Therefore, it might be expected that they score lower in (self-rated) creativity. Different hypotheses relate to the strengths that constitute the virtues of courage and temperance. As gelotophobes tend to avoid situations in which they might be laughed at one might assume that they score lower in bravery. Titze (this issue) describes lack of liveliness and joy as one of the consequences of gelotophobia (see Ruch and Proyer 2008b). Thus, gelotophobes are not expected to be very zestful. Furthermore, a positive relation between gelotophobia and the strengths of prudence, self-regulation, and modesty is expected. Often laughing at is seen as a means of social control. In that case, laughing at the agent of the deviant behavior leads to a change in his/her behavior. One might assume that people who fear being laughed at develop strengths like modesty, prudence, or self-regulation to avoid being laughed at by others.

Fourth, self- and peer-reported strengths might be different in gelotophobes and non-gelotophobes. We expect that the peer ratings are generally higher than the self-ratings as a consequence of the low self-estimations of the gelotophobes. There is empirical evidence that gelotophobes tend to underestimate their own abilities. This was shown empirically for their intellectual abilities (Proyer and Ruch this issue) but also for their humor creation abilities (Ruch et al. this issue).

1.3. *Aims of the present study*

The main aim of the present study is twofold. Firstly, we want to examine the correlations between gelotophobia and self-reported character strengths, virtues, and an aggregate score for overall virtuousness. However, the relations between gelotophobia and virtuousness might not necessarily be linear. Too much of a character strength might cause laughter by others (e.g., a highly spiritual person might get laughed at for his/her beliefs in supernatural powers). It might also be that differences in certain strengths exist only between specific groups (e.g., persons with slight and extreme expressions of gelotophobia). Therefore, we conducted mean score comparisons among non-gelotophobes and low, high, and highest scorers in gelotophobia in the measures for the VIA-strengths. Self-reported strengths do not necessarily provide the full picture of the gelotophobes' virtuousness. Therefore, we have collected peer-reports of

the character strengths of the participants of the study as well. Thus, the second main aim is to examine the convergence in the self- and peer-estimated character strengths, virtues, and a total score for virtuousness.

2. Method

2.1. Research participants

The sample consisted of $N = 346$ participants (124 men and 222 women). Their mean age was 42.49 years ($SD = 13.10$) with a range of 18 to 77 years.

2.2. Instruments

The *Geloph<15>* (Ruch and Proyer 2008a) is a 15-item measure for the subjective assessment of gelotophobia. All items are positively keyed and they utilize a four-point answer scale (from 1 = strongly disagree to 4 = strongly agree). A sample item is “When they laugh in my presence I get suspicious.” The GELOPH<15> is the standard instrument used for the assessment of gelotophobia (see this issue).

The *Values-in-Action Inventory of Strengths* (VIA-IS; Peterson et al. 2005) consists of 240 items for the subjective assessment of 24 character strengths (10 items each). It uses a 5-point answer format (ranging from 1 = “very much like me” through 5 = “very much unlike me”). A sample item is “I never quit a task before it is done” (endurance). The German version of the VIA-IS has been used in previous studies and shows good psychometric properties (see Peterson et al. 2007). As in Matthews et al. (2006) total scores for the six virtues were computed. Additionally, a total score out of all strengths of character was interpreted as a global measure for virtuousness. The latter is contradictory to the multidimensional conceptualization of the character by Peterson and Seligman (2004). However, in the present study the global score was used for the identification of a general pattern in the relation of character strengths and gelotophobia. Thus, this score was implemented despite it is not helpful in the standard application of the VIA-IS.

The *peer-rating form of the VIA-IS* is identical with the VIA-IS but all items are rephrased for peer-evaluations. A sample item is “He/she never

quits a task before it is done” (endurance). The same answer format is used only with rephrased categories (e.g., 1 = “very much like him/her”).

2.3. *Procedure*

The participants were recruited for a training program on character strengths (the “Zurich Strength Program,” Z.S.P.). Before the training started all participants filled in questionnaires that were mailed to them. The participants were instructed to find two persons that were willing to complete the peer-rating form of the VIA-IS and that were able to describe them well (e.g., good friends, family members etc.). Neither the participants nor the peers were paid for their services. The participants received a detailed feedback on their results after the program ended (except for the peer-reports).

The peers received separate instructions and returned their questionnaires in a sealed envelope. They were informed that their estimations would be kept anonymously and not reported to the target-persons. The participants had approximately one month of time for filling in the questionnaires and collecting the peer-ratings.

3. **Results**

We computed mean scores, standard deviations, skewness and kurtosis for all measures used in the study and conducted mean score comparisons between self- and peer-reports. We averaged the two peer reports and used these scores for all analyses in the study. In case a participant only had one peer report (35 cases) we used this single measure. All character strengths and virtues were rank ordered according to their mean expressions and we computed the mean rank order for all strengths in self- and peer-reports.

The self- and peer reports of the 24 VIA-IS scales converged in the range that was expected from other studies using self- and peer-reports. The mean correlation coefficient was .38, ranging from .24 (prudence) to .64 (spirituality). Additionally, we did a reliability analysis for all scales. The results indicated that the mean reliability coefficient (Cronbach-Alpha) for the self-reported character strengths was .76 and it was .81

for the peer-reports. The alpha-coefficients for each scale and the total scores and information on their distribution are shown in Table 1.

Table 1 shows that all scales yielded satisfactory reliability coefficients and ranged between .65 and .88 for the VIA-IS scales. All scales were normally distributed. The overall virtuousness-score was significantly higher for the peer-reports than for the self-reports. Also, they were higher for the virtues of wisdom, courage, humanity, and temperance. In nineteen out of the twenty-four strengths, the mean scores of self- and peer-reports were statistically different from each other. Interestingly, the peer-reports were higher in sixteen scales. The participants had higher mean scores in their self-estimations of appreciation of beauty and excellence, fairness, and gratitude. Self- and peer-reports converged well in bravery, curiosity, forgiveness, hope, and open-mindedness.

3.1. Relationship between gelotophobia and self- and peer-reported character strengths

We computed correlation coefficients between gelotophobia and the VIA-IS (24 character strengths, six virtues, and a total score for virtuousness; self- and peer-report form). Additionally, we computed correlation coefficients between gelotophobia and the rank-order of the character strengths in both forms of the VIA-IS. This is aimed at an evaluation of the strengths that are more/less prevalent among gelotophobes. As a measure for the differences between self- and peer reports we computed difference-scores between normalized self and peer-reports (a negative correlation indicates lower self- than peer-estimated strengths). Table 2 contains the correlation coefficients.

Table 2 shows that gelotophobia was overwhelmingly negatively correlated with the self-estimated character strengths. The correlation for the global score of virtuousness was negative for both, self- and peer reports but significantly lower (higher negative correlation) for the self-reported strengths. Five out of the six core virtues were negatively related to gelotophobia—the exception was temperance. Courage and humanity yielded the highest negative relations ($r = -.46$ and $r = -.38$ respectively, $p < .01$).

The median of the correlation coefficients for all 24 character strengths was $-.24$. Especially, gelotophobes described themselves with lower authenticity, bravery, curiosity, forgiveness, hope, kindness, leadership,

Table 1. *Distribution, rank-order, and reliability of self- and peer-reports of gelotophobia and 24 character strengths*

| | <i>Self-report</i> | | | | | | <i>Peer-report</i> | | | | | |
|----------------------|--------------------|------|-------|-------|-------|----------|--------------------|------|-------|-------|-------|----------|
| | M | SD | MRank | SK | K | α | M | SD | MRank | SK | K | α |
| Gelotophobia | 1.84 | 0.54 | — | 0.61 | −0.12 | .90 | — | — | — | — | — | — |
| Wisdom and knowledge | 3.70 ^a | 3.78 | IV | 0.08 | 0.04 | .81 | 3.78 ^a | 0.35 | IV | −0.50 | 0.84 | .84 |
| Creativity | 3.53 ^a | 0.59 | 12 | −0.12 | −0.13 | .87 | 3.61 ^a | 0.51 | 12 | −0.15 | 0.00 | .88 |
| Curiosity | 3.95 | 0.50 | 19 | −0.27 | −0.20 | .80 | 3.98 | 0.42 | 18 | −0.31 | 0.36 | .82 |
| Open-mindedness | 3.73 | 0.43 | 15 | −0.12 | 0.12 | .76 | 3.78 | 0.45 | 15 | −0.53 | 0.22 | .86 |
| Love of learning | 3.80 ^a | 0.57 | 16 | −0.38 | 0.18 | .83 | 3.88 ^a | 0.53 | 16 | −0.57 | 0.84 | .85 |
| Perspective | 3.48 ^a | 0.48 | 11 | 0.04 | 0.21 | .77 | 3.65 ^a | 0.40 | 12 | −0.08 | 0.27 | .80 |
| Courage | 3.50 ^a | 0.38 | III | 0.10 | 0.08 | .74 | 3.69 ^a | 0.38 | IV | −0.02 | −0.19 | .79 |
| Bravery | 3.49 | 0.50 | 11 | −0.11 | 0.10 | .75 | 3.69 | 0.39 | 13 | −0.24 | 0.18 | .75 |
| Persistence | 3.31 ^a | 0.55 | 5 | −0.22 | 0.12 | .80 | 3.71 ^a | 0.50 | 14 | −0.46 | 0.15 | .87 |
| Authenticity | 3.72 ^a | 0.39 | 15 | 0.02 | 0.44 | .65 | 3.99 ^a | 0.35 | 19 | −0.30 | 0.11 | .74 |
| Zest | 3.48 ^a | 0.52 | 11 | 0.14 | −0.25 | .75 | 3.63 ^a | 0.45 | 12 | −0.08 | 0.37 | .80 |
| Humanity | 3.68 ^a | 0.38 | IV | −0.02 | −0.19 | .73 | 3.78 ^a | 0.36 | IV | −0.32 | 0.44 | .78 |
| Love | 3.67 ^a | 0.52 | 14 | −0.02 | −0.25 | .74 | 3.81 ^a | 0.44 | 16 | −0.51 | 0.61 | .78 |
| Kindness | 3.80 ^a | 0.44 | 17 | −0.30 | 0.74 | .70 | 3.87 ^a | 0.39 | 17 | −0.38 | 0.09 | .78 |
| Social intelligence | 3.58 ^a | 0.46 | 13 | −0.37 | 0.54 | .76 | 3.67 ^a | 0.39 | 13 | −0.16 | 0.38 | .77 |
| Justice | 3.66 | 0.38 | IV | −0.13 | 0.08 | .73 | 3.69 | 0.36 | IV | −0.46 | 1.04 | .82 |
| Teamwork | 3.55 ^a | 0.45 | 13 | −0.52 | 0.53 | .70 | 3.64 ^a | 0.41 | 12 | −0.44 | 0.54 | .79 |
| Fairness | 3.89 ^b | 0.43 | 18 | −0.22 | 0.40 | .75 | 3.82 ^b | 0.41 | 16 | −0.45 | 1.10 | .83 |
| Leadership | 3.53 ^a | 0.45 | 12 | 0.19 | 0.27 | .73 | 3.61 ^a | 0.42 | 12 | −0.21 | 0.38 | .84 |
| Temperance | 3.29 ^a | 0.36 | II | 0.02 | 0.17 | .74 | 3.47 ^a | 0.35 | II | −0.09 | −0.02 | .80 |
| Forgiveness | 3.50 | 0.54 | 12 | −0.43 | 0.69 | .82 | 3.53 | 0.42 | 10 | −0.14 | 0.55 | .81 |
| Modesty | 3.20 ^a | 0.53 | 8 | −0.24 | 0.58 | .75 | 3.41 ^a | 0.53 | 9 | −0.49 | 0.50 | .81 |
| Prudence | 3.27 ^a | 0.49 | 8 | −0.13 | −0.05 | .68 | 3.53 ^a | 0.45 | 11 | −0.21 | 0.21 | .78 |
| Self-regulation | 3.19 ^a | 0.55 | 8 | 0.12 | 0.12 | .72 | 3.42 ^a | 0.51 | 9 | −0.43 | −0.01 | .78 |

| | <i>Self-report</i> | | | | | | <i>Peer-report</i> | | | | | |
|-----------------------|--------------------|------|-------|-------|-------|----------|--------------------|------|-------|-------|-------|----------|
| | M | SD | MRank | SK | K | α | M | SD | MRank | SK | K | α |
| Transcendence | 3.43 | 0.42 | III | 0.12 | 0.18 | .80 | 3.42 | 0.35 | II | -0.10 | 0.18 | .83 |
| Beauty and excellence | 3.55 ^a | 0.51 | 12 | -0.07 | 0.02 | .72 | 3.46 ^a | 0.48 | 9 | -0.01 | 0.05 | .78 |
| Gratitude | 3.69 ^a | 0.50 | 15 | -0.07 | -0.36 | .80 | 3.59 ^a | 0.42 | 11 | -0.41 | 0.41 | .81 |
| Hope | 3.44 | 0.56 | 1 | -0.17 | -0.03 | .78 | 3.50 | 0.47 | 10 | -0.05 | -0.61 | .82 |
| Humor | 3.54 ^b | 0.55 | 12 | -0.21 | -0.08 | .84 | 3.60 ^b | 0.49 | 11 | -0.29 | -0.01 | .87 |
| Spirituality | 2.92 ^a | 0.81 | 7 | -0.07 | -0.49 | .88 | 3.00 ^a | 0.66 | 5 | 0.06 | -0.12 | .88 |
| Virtuousness | 3.54 ^a | 0.29 | — | 0.27 | 0.26 | .76 | 3.64 ^a | 0.27 | — | -0.01 | 0.71 | .81 |

$N = 329\text{--}335$. M = mean, SD = standard deviation, $MRank$ = mean rank order of character strengths (Latin letters) and core virtues (Roman letters)—lowest possible = 1/I and highest possible = 24/VI, SK = skewness, K = kurtosis, α = Cronbach alpha; Beauty and excellence = Appreciation of beauty and excellence.

A dash (—) indicates that the data were not available/could not be computed.

^{ab}Means sharing a superscript differ significantly from each other.

Table 2. *Correlations between gelotophobia, character strengths, and virtues (self- and peer-reports)*

| | <i>r</i> | | | <i>r(rank)</i> | |
|-----------------------|----------|--------|------------|----------------|--------|
| | Self | Peer | Difference | Self-report | Peer |
| Wisdom and knowledge | -.29** | -.01 | -.08 | -.21** | -.06 |
| Creativity | -.14** | .01 | .01 | -.15** | -.05 |
| Curiosity | -.39** | -.21** | -.11 | -.27** | -.19** |
| Open-mindedness | -.07 | .20** | .00 | -.07 | .09 |
| Love of learning | -.25** | -.04 | -.07 | -.19** | -.06 |
| Perspective | -.22** | .04 | -.09 | -.11 | .04 |
| Courage† | -.46** | -.24** | -.16** | -.28** | -.20** |
| Bravery | -.44** | -.25** | -.10 | -.32** | -.25** |
| Persistence | -.31** | -.10 | -.11 | -.18** | -.08 |
| Authenticity† | -.26** | .06 | -.15* | -.06 | .12* |
| Zest | -.40** | -.23** | -.10 | -.29** | -.21** |
| Humanity† | -.38** | -.11* | -.18** | -.17** | -.05 |
| Love† | -.38** | -.19** | -.19** | -.17** | -.05 |
| Kindness | -.23** | .03 | -.08 | -.13* | .00 |
| Social intelligence† | -.30** | -.06 | -.13* | -.15** | -.05 |
| Justice† | -.28** | .03 | -.15** | -.09 | .09 |
| Teamwork† | -.23** | .02 | -.15** | -.05 | .11* |
| Fairness† | -.19** | .09 | -.15** | .00 | .18** |
| Leadership | -.29** | -.03 | -.08 | -.19** | -.10 |
| Temperance | -.07 | .27** | -.12* | .07 | .32** |
| Forgiveness† | -.24** | -.04 | -.07 | -.06 | .06 |
| Modesty | .17** | .39** | -.02 | .25** | .36** |
| Prudence | .01 | .25** | -.08 | .04 | .26** |
| Self-regulation | -.13* | .06 | .00 | -.04 | .07 |
| Transcendence | -.24** | .02 | -.05 | -.17** | -.07 |
| Beauty and excellence | -.08 | .17** | -.06 | -.08 | .01 |
| Gratitude | -.19** | .07 | -.06 | -.10 | .05 |
| Hope | -.41** | -.27** | -.05 | -.35** | -.28** |
| Humor | -.28** | -.10 | -.10 | -.15** | -.05 |
| Spirituality | .03 | .14* | -.01 | .04 | .10 |
| Virtuousness† | -.37** | .06 | -.15** | -.19** | .03 |

$N = 316\text{--}346$, $N = 314\text{--}323$ for the partial correlations, $N = 333\text{--}334$ for the correlations with the difference score; *Self* = self-report, *Peer* = peer-report; $r(\text{rank})$ = correlation with the rank order of the strengths, $r(\text{Diff})$ = difference score of self- and peer-ratings (peer minus self, normalized data); Beauty and excellence = Appreciation of beauty and excellence.

† correlation coefficients (self- and peer) differ significantly from each other.

* $p < .05$, ** $p < .01$

love of learning, persistence, perspective, social intelligence, teamwork, and zest (all $r_s \geq -.20$, $p < .01$). Bravery, hope/optimism, and zest showed the highest negative correlations (all $\geq -.40$). As expected, the strength of humor was also negatively related to gelotophobia ($r = -.28$, $p < .01$).

Interestingly, there was only one character strength that was positively related to gelotophobia; i.e., modesty ($r = .17$, $p < .01$). Gelotophobia was unrelated to the participants' expression in the strengths of appreciation of beauty and excellence, open-mindedness, prudence, and spirituality. Neither age nor sex had an effect when on partial correlations.

The median of the correlations of the peer-ratings and gelotophobia was about half the size of the median for the self-ratings ($r = -.12$). Gelotophobia and the peer-estimated strengths of appreciation of beauty and excellence, authenticity, fairness, forgiveness, gratitude, open-mindedness, perspective, prudence, self-regulation, spirituality, and teamwork existed independently from each other. Again, partial correlations (controlling for age and sex) led to virtually identical results. The correlation coefficients for the strengths of authenticity, fairness, forgiveness, love, social intelligence, and teamwork were significantly lower in the self than in the peer-estimations (see Steiger 1980). The difference scores between self and peer-evaluations led to similar results. Here, gelotophobes had lower self-estimations in authenticity, fairness, love, social intelligence, and teamwork (all $r_s \geq -.13$, $p < .01$).

Highest differences for the mean rank of the character strengths were found for persistence, authenticity, prudence (lower in self-reports), and appreciation of beauty and excellence and gratitude (higher in self-reports). At the level of virtues the mean rank orders were highly similar. Only courage had lower ranks in the peer reports and transcendence a lower rank in the self-reports. Correlations with the rank order of the character strengths revealed that in particular the virtue of temperance was characteristic for gelotophobes (the strengths of modesty and prudence). This was also supported by the peer-estimations. Negative relations in self- and peer-estimations were found to the virtue of courage (mainly bravery and zest). The virtue of humanity also yielded lower ranks among the gelotophobes—this was not supported by the peer estimations. Primarily, gelotophobes had a low rank order for the strength of love (also not supported by peer-reports). However, the rank order for the virtues of wisdom and knowledge, justice, and transcendence existed independently from gelotophobia. This was also true for the strength of

humor that yielded a middle rank for the gelotophobes (rank thirteen out of 24 in the self- and rank nine in the peer-reports). Hope was one of the strengths of the virtue transcendence with the lowest rank-orders in the self- and peer-estimations.

3.2. *Mean score differences among different expressions of gelotophobia*

In the present sample 12.26% (41) of the participants exceeded the cut-off scores indicating high scores in gelotophobia (i.e., mean score ≥ 2.50 in the GELOPH<15>; see Ruch and Proyer 2008a). 8.06% (27) had slight, 3.58% (12) had pronounced, and 0.60% (2) had extreme expressions of the fear of being laughed at. For mean score comparisons we have split the data into three groups according to the mean scores in gelotophobia (we have merged the pronounced and extreme group to a single category because of the low number of participants with extreme scores). ANOVAs were computed with the three groups as classification variables and the VIA-IS scales as dependent variables. The mean scores for self- and peer-reports split by the three groups are shown in Table 3.

Table 3 shows that gelotophobes described themselves as less virtuous than non-gelotophobes. Slight and pronounced/extreme gelotophobes did not differ from each other regarding their overall virtuousness but had both significantly lower mean scores than non-gelotophobes ($d = .21$). Overall, the peer-reports indicated no differences in the mean scores of the three groups for the total score of virtuousness and five out of the six core virtues. Only slight gelotophobes had lower means in wisdom and knowledge than non-gelotophobes—this was also true for the self-report data. Gelotophobes and non-gelotophobes yielded similar mean scores in the total score for temperance in the self-reports. Slight and pronounced/extreme gelotophobes yielded lower means in the virtues courage and humanity than non-gelotophobes. Pronounced/extreme gelotophobes had lower mean scores in the virtue transcendence than non-gelotophobes. All effect sizes for mean score differences in the self-reports ranged between $d = .14$ and $d = .27$.

The analyses revealed that there were significant mean differences in thirteen out of the twenty-four VIA-IS scales. Interestingly, there were no mean score differences in three out of the four strengths of the virtue temperance (i.e., modesty, prudence, and self-regulation) and in three out of the five strengths of the virtue transcendence (i.e., appreciation of

Table 3. Mean scores for self- and peer-reported character strengths in non-gelotophobes and gelotophobes with slight and pronounced/extreme expressions of gelotophobia

| | Self-report | | | | Peer-report | | | |
|-----------------------|--------------------|-------------------|--------------------|-----|--------------------|--------------------|-------------------|-----|
| | G _n | G _s | G _{pe} | ES | G _n | G _s | G _{pe} | ES |
| Wisdom and knowledge | 3.73 ^a | 3.46 ^a | 3.56 | .21 | 3.80 ^a | 3.59 ^a | 3.80 | .16 |
| Creativity | 3.54 | 3.30 | 3.59 | — | 3.62 ^a | 3.39 ^{ab} | 3.74 ^b | .14 |
| Curiosity | 4.00 ^{ab} | 3.56 ^a | 3.60 ^b | .29 | 4.00 ^a | 3.70 ^a | 3.96 | .20 |
| Open-mindedness | 3.74 | 3.59 | 3.84 | — | 3.79 | 3.65 | 3.86 | — |
| Love of learning | 3.84 ^{ab} | 3.54 ^a | 3.50 ^b | .19 | 3.90 ^a | 3.63 ^a | 3.83 | .14 |
| Perspective | 3.50 ^a | 3.29 ^a | 3.27 | .16 | 3.66 | 3.56 | 3.62 | — |
| Courage | 3.54 ^{ab} | 3.30 ^a | 3.12 ^b | .27 | 3.76 | 3.68 | 3.71 | — |
| Bravery | 3.54 ^{ab} | 3.10 ^a | 3.00 ^b | .30 | 3.70 | 3.53 | 3.59 | — |
| Persistence | 3.34 ^a | 3.25 ^b | 2.90 ^{ab} | .16 | 3.71 | 3.69 | 3.67 | — |
| Authenticity | 3.74 ^{ab} | 3.58 ^a | 3.52 ^b | .15 | 3.99 | 4.01 | 4.00 | — |
| Zest | 3.52 ^{ab} | 3.26 ^a | 3.04 ^b | .22 | 3.64 | 3.47 | 3.58 | — |
| Humanity | 3.71 ^{ab} | 3.46 ^a | 3.51 ^b | .21 | 3.79 | 3.68 | 3.82 | — |
| Love | 3.72 ^{ab} | 3.37 ^a | 3.28 ^b | .24 | 3.83 | 3.64 | 3.81 | — |
| Kindness | 3.81 | 3.70 | 3.78 | — | 3.87 | 3.86 | 3.93 | — |
| Social intelligence | 3.62 ^a | 3.30 ^a | 3.47 | .19 | 3.68 | 3.53 | 3.72 | — |
| Justice | 3.67 ^a | 3.51 ^a | 3.54 | .14 | 3.69 | 3.65 | 3.71 | — |
| Teamwork | 3.57 | 3.48 | 3.33 | — | 3.64 | 3.62 | 3.69 | — |
| Fairness | 3.90 | 3.75 | 3.84 | — | 3.81 | 3.84 | 3.93 | — |
| Leadership | 3.56 ^a | 3.30 ^a | 3.45 | .16 | 3.63 | 3.50 | 3.51 | — |
| Temperance | 3.29 | 3.31 | 3.21 | — | 3.46 | 3.54 | 3.56 | — |
| Forgiveness | 3.54 ^{ab} | 3.32 ^a | 3.14 ^b | .18 | 3.54 | 3.44 | 3.53 | — |
| Modesty | 3.18 | 3.32 | 3.29 | — | 3.38 ^a | 3.62 ^a | 3.64 | .16 |
| Prudence | 3.26 | 3.36 | 3.32 | — | 3.52 | 3.63 | 3.54 | — |
| Self-regulation | 3.18 | 3.26 | 3.09 | — | 3.41 | 3.49 | 3.52 | — |
| Transcendence | 3.45 ^a | 3.30 | 3.21 ^a | .15 | 3.43 | 3.36 | 3.43 | — |
| Beauty and excellence | 3.55 | 3.54 | 3.52 | — | 3.45 | 3.45 | 3.57 | — |
| Gratitude | 3.71 | 3.60 | 3.40 | — | 3.58 | 3.61 | 3.62 | — |
| Hope | 3.50 ^{ab} | 3.17 ^a | 2.87 ^b | .27 | 3.53 ^{ab} | 3.26 ^a | 3.23 ^b | .20 |
| Humor | 3.58 ^a | 3.21 ^a | 3.29 | .19 | 3.61 | 3.44 | 3.65 | — |
| Spirituality | 2.92 | 2.98 | 2.96 | — | 3.00 | 3.05 | 3.08 | — |
| Virtuousness | 3.56 ^{ab} | 3.38 ^a | 3.34 ^b | .21 | 3.65 | 3.57 | 3.66 | — |

N = 335–345. G_n = non-gelotophobes (N = 293–303), G_s = slight gelotophobes (N = 27–28), G_{pe} = pronounced/extreme gelotophobes (N = 14), ES = effect sizes (Cohen's d); Beauty and excellence = Appreciation of beauty and excellence.

^{ab} Means sharing a superscript differ significantly from each other.

A dash (—) indicates that the score was not computed.

beauty and excellence, gratitude, and spirituality). Gelotophobes did not have the highest mean in any of the strengths but in modesty (non significant) and the slight gelotophobes in the self-regulation (n.s.). Most notably (in terms of effect sizes) gelotophobes described themselves lower

in bravery, curiosity, and hope/optimism. Overall, gelotophobes had lower self-estimations of own strengths with small to medium effect sizes for the mean score differences.

The picture was different for the peer-ratings. Here, gelotophobes had lower mean scores only for hope/optimism ($d = .20$). However, mean score differences were found for creativity, curiosity, love of learning, and modesty as well. The main difference is that the highest scoring gelotophobes in the sample had *higher* mean scores than the participants with slight expressions of gelotophobia—an exception is modesty where the mean scores of slight and extreme gelotophobes were virtually identical. In the other strengths pronounced gelotophobes had lower peer-ratings than extreme and non-gelotophobes. Overall, there were fewer mean differences in the peer ratings than in the self-ratings and they were only small in size.

4. Discussion

The present article examines the fear of being laughed at in its relations to self- and peer-reported character strengths. We used a comprehensive classification system that comprises twenty-four strengths (the VIA-classification; Peterson and Seligman 2004) and that can be assessed reliably and validly by means of a self-report instrument (Peterson et al. 2005).

Gelotophobia can be accurately located in the VIA-classification of strengths of character. Most notably, gelotophobes describe themselves as less virtuous than non-gelotophobes. However, this is not reflected in mean score comparisons of peer-ratings where the highest scoring gelotophobes yield the same ratings as non-gelotophobes. Furthermore, gelotophobia is negatively related to nineteen out of the twenty-four character strengths. Among them modesty seems to be of special interest as it was the only character strength that was negatively related to life-satisfaction in previous studies (Peterson et al. 2006, 2007). The design of the study does not allow for causal interpretations of the results and therefore it is unclear whether gelotophobia leads to modesty (as it diminishes the risk of being laughed at) or whether modest people develop gelotophobia (e.g., because they might be of the opinion that their major accomplishments can not keep up with the accomplishments of others and therefore fear being laughed at). In future studies it would be interesting to differen-

tiate between successful and modest persons and persons that are not successful but modest to learn more about the nature of the relation between modesty and the fear of being laughed at. The relation of gelotophobia to modesty is in line with predictions set up in the introductory section. However, other expectations were not fully supported. For example, there is a negative relation to self-regulation in the self-descriptions and a zero-correlation in the peer-reports.

Next to modesty, gelotophobes experience themselves as low in bravery, curiosity, hope/optimism, curiosity, and zest. Peterson and Seligman (2004: 214) state: “Bravery involves the mastery of fear rather than fearlessness.” However, not being able to master their fear of being laughed at it had to be expected that gelotophobes would see themselves as low in bravery. For Peterson and Seligman (2004: 125) curiosity is to be interpreted as an active strength; “curiosity involves the active recognition, pursuit, and regulation of one’s experience in response to challenging opportunities.” Thinking of gelotophobes as introverted and withdrawn persons one can assume that pursuing new experiences is rather difficult for them. In Proyer et al. (2008) gelotophobes were found to be low in activities that entail the use of their own strengths and abilities for an activity that is important to ones self and that are related to flow-experiences (“life of engagement”). This finding is similar to the present one, as again the pursuit of actively seeking activities (challenging opportunities) seems to be reduced among gelotophobes. The negative correlation to zest, which is closely related to an “energetic” view of the world, fits well into this picture. Recently, Peterson et al. (in press) showed that zest is positively related to life satisfaction, work satisfaction, and to the stance of work as a calling. Relating gelotophobia to work satisfaction might be an interesting subject for future studies.

There is a negative relation between gelotophobia and hope/optimism. Optimistic people have a positive stance towards the future and think that the future will hold something good for them—in terms of desired events and wishes come true (see Peterson and Seligman 2004). This view is obviously biased in gelotophobes. Though the design of the study does not allow for causal interpretations of the results one might assume that gelotophobes might benefit from interventions designed for enhancing optimism (Peterson and Seligman provide an overview on such programs). Additionally, a more thorough assessment of optimism (compared to the VIA-IS scale) with different facets of optimism and explanatory styles might be useful. Gelotophobia was also negatively related to

the character strength of humor. The study extends the findings of Ruch et al. (this issue) to the VIA-IS conceptualization of humor. However, certain character strengths (appreciation of beauty and excellence, open-mindedness, prudence, and spirituality) exist independently from the expression of gelotophobia.

Self- and peer-descriptions differed most regarding the strengths authenticity, fairness, forgiveness, love, social intelligence, and teamwork. In all cases the peer-reports indicated lower negative relations than the self-reports. As in the studies by Ruch et al. (this issue) and Proyer and Ruch (this issue) gelotophobes seem to underestimate their true abilities. Also, it has to be mentioned that eleven out of the twenty-four strengths exist independently from gelotophobia in the peer-reports. At the level of virtues gelotophobes can mainly be described as low in courage (bravery and zest) and high in temperance (modesty and prudence).

One might criticize the present study because the VIA-IS is a questionnaire that deals with highly desirable characteristics of a person. Therefore it is putatively susceptible to answer distortions (i.e., socially desirable answers). To overcome this problem we computed correlations between the rank order of the strengths and gelotophobia. The results indicate that important strengths for gelotophobes are modesty and prudence (both out of the virtue of temperance), appreciation of beauty and excellence, open-mindedness, and spirituality. None of these strengths are among the ones that are highest related to life-satisfaction (see Peterson et al. 2006, 2007). Taking the peer-reports into account as well gelotophobes might be described as modest and prudent and low in courage, curiosity, zest, and hope/optimism—among the latter ones are three that usually are highest correlated with satisfaction with life. This is in line with the Proyer et al. (2008) study where there was a negative relation between satisfaction with life and gelotophobia.

The comparison of the mean scores of non-gelotophobes vs. slight and pronounced/extreme gelotophobes showed that gelotophobes do not score higher than non-gelotophobes in *any* of the twenty-four strengths. There are significant mean score differences in thirteen out of the twenty-four VIA-IS scales. Mean score differences in the peer-reports reveal similar results but there is one major difference. Pronounced/extreme expressions of gelotophobia were in most cases related to *higher* peer-rated character strengths than slight expressions. This cannot be fully explained by the results obtained in the study. It might be that peers overestimate the strengths of pronounced/extreme gelotophobes, as they want

to be supportive for them or interpret little signs of strengths stronger than in non-gelotophobes. However, this is currently at the level of speculations and the clarification will require further study. Overall, the effect sizes for mean differences in peer-reported character strengths are small.

The present study shows that the four reasons proposed for studying gelotophobia in relation to strengths of character were useful in the further description of the experiential world of gelotophobes. Gelotophobia can be located in the framework of the VIA-classification. Those strengths that are most highly correlated with life satisfaction are negatively correlated with gelotophobia. The expectations concerning the negative relations to specific strengths (e.g., humor, zest, modesty, etc.) were supported and self- and peer-reported strengths differed. Therefore, this can be seen as an initial study that may lead to the development of a treatment program that is based on positive psychology.

University of Zurich

Notes

Correspondence address: r.proyer@psychologie.uzh.ch

* The University of Zurich (FK56231101) and the Suzanne and Hans Biäsch Foundation (Zurich, Switzerland) supported the present study. The authors are grateful to Claudia Buschor, Fabian Gander, Maria Ture, and Tobias Wyss who helped with the data collection.

References

- American Psychiatric Association
1994 *Diagnostic Statistic Manual of Mental Disorders*, 4th ed. Washington, DC: Author.
- Beermann, Ursula and Willibald Ruch
2008 How virtuous is humor? What we can learn from current humor instruments. Manuscript submitted for publication.
- Craik, Kenneth H., Martin D. Lampert, and Arvalea J. Nelson
1993 *Research Manual for the Humorous Behavior Q-sort Deck*. Berkeley, CA: University of California, Institute of Personality and Social Research.
- Dahlsgaard, Katherine, Christopher Peterson, and Martin E. P. Seligman
2005 Shared virtue: The convergence of valued human strengths across culture and history. *Review of General Psychology* 9 (3), 203–213.
- Janes, Leslie M. and James M. Olson
2000 Jeer pressure: The behavioral effects of observing ridicule of others. *Personality and Social Psychology Bulletin* 26 (4), 474–485.

- Linley, Alex P., John Maltby, Alex M. Wood, Stephen Joseph, Susan Harrington, Christopher Peterson, Nansook Park, and Martin E. P. Seligman
2007 Character strengths in the United Kingdom: The VIA Inventory of Strengths. *Personality and Individual Differences* 43 (2), 341–351.
- Martin, Rod A., Patricia Puhlik-Doris, Gwen Larsen, Jeanette Gray, and Kelly Weir
2003 Individual differences in uses of humor and their relation to psychological well-being: Development of the humor styles questionnaire. *Journal of Research in Personality* 37, 48–75.
- Matthews, Michael D., Jarle Eid, Dennis Kelly, Jennifer K. S. Bailey, and Christopher Peterson
2006 Character strengths and virtues of developing military leaders: An international comparison. *Military Psychology* 18, 57–68.
- Otake, K., Satoshi Shimai, Junko Tanaka-Matsumi, Kanako Otsui, and Barbara L. Fredrickson
2006 Happy people become happier through kindness: A counting kindness intervention. *Journal of Happiness Studies* 7, 361–375.
- Park, Nansook, Christopher Peterson, and Martin E. P. Seligman
2004 Strengths of character and well-being. *Journal of Social and Clinical Psychology* 23 (5), 603–619.
- Park, Nansook, Christopher Peterson, and Martin E. P. Seligman
2006 Character strengths in fifty-four nations and the fifty US states. *The Journal of Positive Psychology* 1 (3), 118–129.
- Peterson, Christopher and Martin E. P. Seligman
2004 *Character Strengths and Virtues: A Handbook and Classification*. Washington, DC: American Psychological Association.
- Peterson, Christopher, Nansook Park, and Martin E. P. Seligman
2005 Assessment of character strengths. In Koocher, Gerald P., John C. Norcross, and Sam S. Hill, III (eds.), *Psychologists' Desk Reference*, 2nd ed. New York: Oxford University Press; 93–98.
- Peterson, Christopher, Nansook Park, and Martin E. P. Seligman
2006 Greater strengths of character and recovery from illness. *The Journal of Positive Psychology* 1 (1), 17–26.
- Peterson, Christopher, Nansook Park, Nicholas Hall, and Martin E. P. Seligman
in press Zest and work. *Journal of Organizational Behavior*.
- Peterson, Christopher, Willibald Ruch, Ursula Beermann, Nansook Park, and Martin E. P. Seligman
2007 Strengths of character, orientations to happiness, and life satisfaction. *Journal of Positive Psychology* 2 (3), 149–156.
- Platt, Tracey
2008 Emotional responses to ridicule and teasing: Should gelotophobes react differently? *Humor: International Journal of Humor Research* 21 (2), 105–128.
- Proyer, René T., Willibald Ruch, and Guo-Hai Chen
forthc. Positive psychology and the fear of being laughed at: Gelotophobia and its relations to orientations to happiness and life satisfaction in Austria, China, and Switzerland. *Humor: International Journal of Humor Research*.
- Ruch, Willibald and René T. Proyer
2008a Who is gelotophobic? Assessment criteria for the fear of being laughed at. *Swiss Journal of Psychology* 67 (1), 19–27.
- 2008b The fear of being laughed at: Individual and group differences in gelotophobia. *Humor: International Journal of Humor Research* 21 (1), 47–67.

- in press Who fears being laughed at? The location of gelotophobia in the PEN-model of personality. *Personality and Individual Differences*.
- Ruch, Willibald, Gabriele Köhler, and Christoph van Thriel
1996 Assessing the “humorous temperament”: Construction of the facet and standard trait forms of the State-Trait-Cheerfulness-Inventory — STCI. *Humor: International Journal of Humor Research* 9 (Special Issue: Measurement of the Sense of Humor), 303–339.
- Seligman Martin E. P. and Mihaly Csikszentmihalyi
2000 Positive psychology: An introduction. *American Psychologist* 55 (1), 5–14.
- Seligman, Martin E. P., Tracey A. Steen, Nansook Park, and Christopher Peterson
2005 Positive psychology progress: Empirical validation of interventions. *American Psychologist* 60 (5), 410–421.
- Steiger, James H.
1980 Tests for comparing elements of a correlation matrix. *Psychological Bulletin* 87 (2), 245–251.